



Reference 8

UIC Log #62

Fact SheetCabot Corporation
Tuscola Facility

EPA Region 5 Records Ctr.



298854

UIC-007-W2-CC

For Operation of a Class I Well No. WDW-2

This fact sheet has been prepared pursuant to the requirements of Section 705.143, Illinois Adm. Code 35. The fact sheet is intended to be a brief summary of the principal facts and significant factual, legal, methodological, and policy questions considered in preparing a draft permit.

Contacts:

Cabot Corporation
Attention: Dick Anderson, Plant Manager
Post Office Box 188
Tuscola, Illinois 61953

Description of Facility and Background Information:

The Cabot Corporation at Tuscola, Illinois is in the business of producing fumed silicon dioxide (Cab-o-sil). Cab-o-sil is produced by the hydrolysis of silicon tetrachloride vapor in a flame of hydrogen and oxygen. The product is used as an additive in paints, printing inks, decorative coatings, silicone rubber, adhesives, free-flowing powders, toothpaste, shampoo, and cosmetics. The company proposes to operate a Class I type injection well at this location. The Cabot Corporation at Tuscola, Illinois has been operating an industrial waste injection well since 1966. The well WDW-2 is located at 1235 feet north and 571 feet west of the SE corner of the SW quarter of the SE quarter of Section 31, Township 16 North, Range 8 East of the 3rd Principal Meridian, Douglas County, Illinois.

The liquid waste is injected into the Eminence - Potosi - Upper Franconia Formations comes from the company's pump seals, floor washing and rainfall, hydrochloric acid vent scrubber, and sweep gas and production gas scrubber. This waste water is stored at the facility in 250,000 gallons open top storage tank and 30,000 gallon open top storage tank.

Type and Quantity of Waste:

The Cabot Corporation is injecting an average of 201,600 gallons of liquid waste daily into the Eminence - Potosi - Upper Franconia Formations. This waste will consist of the following key component and maximum concentration:

a) Hydrochloric Acid

5%



DRAFT PERMIT

UIC-007-W2-CC

I. PERMIT CONDITIONS

A. WELL SPECIFICATIONS

1. Well Location. Waste disposal well (WDW) #2 is located at 1235 feet north and 571 feet west of the SE corner of the SW quarter of the SE quarter of Section 31, Township 16 North, Range 8 East of the 3rd Principal Meridian, Douglas County, Illinois. The completed depth of the well is at 5300 feet or 4610 feet below Mean Sea Level.
2. Application and Plans. Well operation shall be conducted in accordance with the approved permit application and plans prepared by Ken E. Davis Associates and Texas World Operations, Inc. consisting of:

<u>Pages</u>	<u>Date</u>	<u>Date Received</u>
146	February 13, 1985	February 15, 1985
135	June 14, 1985	June 17, 1985
93	June 25, 1986	June 27, 1986
17	April 30, 1986	May 1, 1986
143	September 19, 1986	September 22, 1987
4	October 23, 1986	October 27, 1986
20	March 18, 1987	March 19, 1987
56	July 13, 1987	July 16, 1987

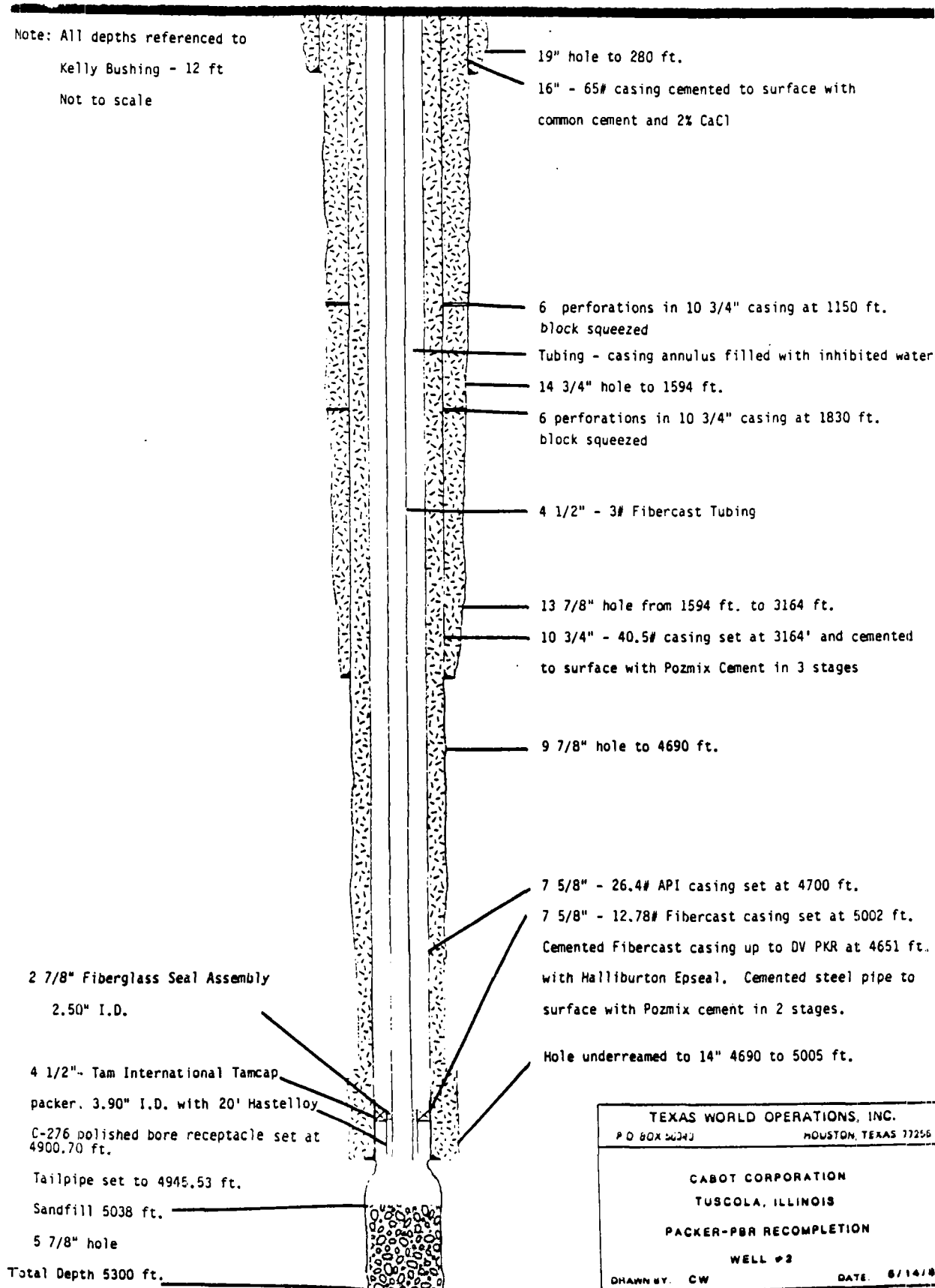
3. Casing and Cementing. The injection well, WDW #2, is cased and cemented to prevent the movement of fluids into or between aquifers through the well bore. The casing and cement used in the construction of the well are shown in Attachment C. (35 I.A.C. 730.112(b))
 - a. Surface Casing. The surface casing is set and cemented to a subsurface depth of 280 feet. Cementing was accomplished with 12 cubic yards of Class "A" type cement with 2% calcium chloride additive using the pump and plug method.
 - b. Intermediate Casing. Intermediate casing string is set at 3164 feet and cemented to the surface with Pozmix "A" and lite cement using the pump and plug method.
 - c. Longstring Casing. The longstring casing consists of a steel casing section from surface to 4691 feet and a thread-connected Fibercast section extending to 5002 feet, landing depth of the longstring. The longstring is cemented from the 4691 to the surface with 50-50 pozmix in two stages and from 4691 to 5002 feet with Epseal cement.

CABOT CORPORATION

PACKER-PBR RECOMPLETION

WELL #2

Note: All depths referenced to
Kelly Bushing - 12 ft
Not to scale



TEXAS WORLD OPERATIONS, INC.	
P.O. BOX 26242	HOUSTON, TEXAS 77256
CABOT CORPORATION	
TUSCOLA, ILLINOIS	
PACKER-PBR RECOMPLETION	
WELL #2	
DRAWN BY: CW	DATE: 6/14/87



DRAFT PERMIT

UIC-007-W2-CC

Attachment D

CHEMICAL PARAMETERS FOR MONITORING PROGRAM

<u>Parameter</u>	<u>Waste Frequency*</u>
Temperature (°F)	C
pH (Units)	C
% Hydrochloric Acid	BH
% Chloride	W
Total Suspended Solids (mg/l)	W
Density (g/ml)	W
Total Dissolved Solids (mg/l)	W
Viscosity (centipoise)	W
Specific Gravity	W
Phenols	M
Total Organic Carbons (TOC)	M
Total Organic Halogen (TOX)	M
Organic Scan (ppb)	Q
Ammonia Nitrogen (mg/l)	A
Nitrite + Nitrate (mg/l)	A
Cyanide (as Cn) (mg/l)	A
Sodium (as Na) (mg/l)	A
Chloride (as Cl) (mg/l)	A
Sulfate (as SO ₄) (mg/l)	A
Fluoride (as F) (mg/l)	A
Arsenic (as As) (ug/l)	A
Barium (as Ba) (ug/l)	A
Boron (as B) (ug/l)	A
Cadmium (as Cd) (ug/l)	A
Chromium (as Cr) (ug/l)	A
Copper (as Ca) (ug/l)	A
Iron (as Fe) (ug/l)	A
Lead (as Pb) (ug/l)	A
Manganese (as Mn) (ug/l)	A
Nickel (as Ni) (ug/l)	A
Silver (as Ag) (ug/l)	A
Zinc (as Zn) (ug/l)	A
Selenium (as Se) (ug/l)	A
Mercury (as Hg) (ug/l)	A

*BH = Bi-hourly (once every 2 hours)

M = Monthly

W = Weekly

Q = Quarterly

C = Continuous

A = Annually